

In the Claims

For the convenience of the Examiner, all pending claims are set forth below, whether or not an amendment is made. Please amend the claims as follows:

1. (Previously presented) A method for processing data comprising:
receiving data at a cache server;
generating an expiration command at a data center manager in response to a change in the data;
receiving the expiration command at the cache server from the data center manager;
and
marking the data as expired according to the expiration command.
2. (Original) The method for processing data according to Claim 1 further comprising:
receiving a data request at the cache server from a remote computer, the data request requesting data from the cache server;
determining whether the requested data is available at the cache server;
retrieving the requested data from an origin server when the requested data is unavailable; and
communicating the requested data from the cache server to the remote computer.
3. (Original) The method for processing data according to Claim 2 wherein the data comprises a web page and further comprising generating the web page at an origin server.
4. (Original) The method for processing data according to Claim 3, wherein generating the web page comprises generating the web page based on the data request.

5. (Original) The method for processing data according to Claim 2, wherein determining whether the requested data is available comprises:

determining whether the requested data is present at the cache server; and
determining whether the requested data is current when the requested data is present at the cache server.

6. (Original) The method for processing data according to Claim 2, wherein retrieving the requested data comprises controlling, by the flow control server, retrieval by the cache server of the requested data from the origin server.

7. (Original) The method for processing data according to Claim 6, wherein controlling retrieval comprises:

determining at the flow control server a current load associated with the origin server;
prioritizing at the flow control the requested data; and
determining when the cache server retrieves the requested data based on the current load and the priority of the requested data.

8. (Original) The method for processing data according to Claim 7, wherein determining whether to grant permission comprises:

granting permission to the cache server when the current load is below a predetermined threshold; and
denying permission to the cache server when the current load exceeds the predetermined threshold.

9. (Cancelled)

10. (Currently Amended) The method for processing data according to ~~Claim 9~~ Claim 1 further comprising generating the expiration command at the data center manager in response to the elapsing of a predetermined period of time.

11. (Currently Amended) The method for processing data according to ~~Claim 9~~ Claim 1, wherein generating the expiration command comprises:

detecting a change in the data associated with the origin server by a trigger associated with the data;

generating a data change command indicating at least one changed item of content;
and

communicating the data change command to the data center manager.

12. (Previously presented) The method for processing data according to Claim 1, wherein marking the data as expired comprises receiving the expiration command from the data center manager and determining the data to expire as a function of the expiration command.

13. (Original) The method for processing data according to Claim 12, wherein the expiration command expires a single web page.

14. (Original) The method for processing data according to Claim 12, wherein the expiration command expires a plurality of web pages.

15. (Original) The method for processing data according to Claim 12, wherein the expiration command expires a plurality of web pages at a plurality of web sites.

16. (Original) The method for processing data according to Claim 12, wherein the expiration command expires a plurality of web pages at a plurality of domains.

17. (Original) The method for processing data according to Claim 12 further comprising:

receiving at the data center manager a data change message from a trigger associated with a data source, the data source associated with an origin server; and

generating the expiration command at the data center manager as a function of the data change message.

18. (Original) The method for processing data according to Claim 1, wherein the data comprises a web page using the hypertext markup language.

19. (Original) The method for processing data according to Claim 1, wherein the expiration command comprises an Internet Cache Synchronization Protocol command.

20. (Previously presented) The method for processing data according to Claim 19, wherein the expiration command comprises an Internet Cache Synchronization Protocol terse command and further including generating the expiration command at the data center manager in response to an Internet Cache Synchronization Protocol verbose command.

21. (Original) The method for processing data according to Claim 1, wherein the data has an associated request element identifying the data, the request element having a first portion and a second portion distinct from the first portion and wherein receiving data at the cache server comprises:

filtering the first portion of the request element based on predetermined criteria associated with an origin server associated with the data; and

identifying the data based on the second portion of the request element.

22. (Original) The method for processing data according to Claim 21 further comprising:

receiving a request at the cache server, a first portion of the request being distinct from the first portion of the request element and a second portion of the request being substantially similar to the second portion of the request element; and

retrieving the data as a function of the second portion of the request and the second portion of the request element.

23. (Original) The method for processing data according to Claim 22, wherein the request element comprises a uniform resource locator and the request comprises a uniform resource locator.

24. (Currently amended) A method for providing efficient data access service comprising:

subscribing an origin server to a data center;

routing a data request from a browser to the data center, the data request requesting a dynamic content item and having an associated address indicating the origin server;

receiving an expiration command from a data center manager, the expiration command generated in response to a change in the dynamic content item;

updating an expiration time of the dynamic content item in accordance with the expiration command;

determining whether the dynamic content item is available at the data center according to the expiration time of the dynamic content item;

generating the dynamic content item at the origin server when the dynamic content item is unavailable at the data center;

retrieving the dynamic content item from the origin server when the content item is unavailable at the data center; and

communicating the dynamic content item to the browser.

25. (Original) The method for providing efficient data access service according to Claim 24, wherein subscribing the origin server comprises transferring domain name resolution service to the data center and wherein routing the data request comprises resolving the address associated with the origin server.

26. (Original) The method for providing efficient data access service according to Claim 24, wherein determining whether the dynamic content item is available comprises:

determining whether the dynamic content item is present at the data center; and

determining whether the dynamic content item is current when the content item is present at the data center.

27. (Currently amended) A system for processing data comprising:
a data center operable to receive a request from a client; and
a data center manager coupled to a data source and the data center, the data source operable to generate a data change message, and the data center manager operable to receive the data change message and generate an expiration message ~~therefrom~~ in response to the data change message, the data center manager operable to send the expiration message to a cache server.

28. (Original) The system for processing data according to Claim 27, wherein the data center comprises a web server, a cache server and a flow control server.

29. (Original) The system for processing data according to Claim 28, wherein the web server is operable to receive the request from the client, wherein the cache server is operable to store data received from the origin server and wherein the flow control server is operable to prioritize the request and control the cache server.